

In-Situ



Newsletter of the Nevada Archaeological Association

Vol 12, No. 3 Autumn 2008

PRESIDENTS CORNER

Eva Jensen, NAA President

What happened to the board?

I hope you had a good summer with great projects, fun-fun filled vacations or staycations whichever your budged afforded. The NAA board went to court, jail, and church in Lander County this summer. We met in Austin at the Bob Scott campground during what locals said was a horrible heat wave in July. Those of us from the south found it quite pleasant to be in only 90 degree weather. Not like the feeling of walking under a 1960's beauty shop hair dryer we usually get in Las Vegas.

Joy Brandt, Lander County Executive Secretary, walked with us to tour the historic churches of Austin and Alice added interesting points of information from the SHPO National Register records. I haven't seen the inside of that many churches in quite some time.

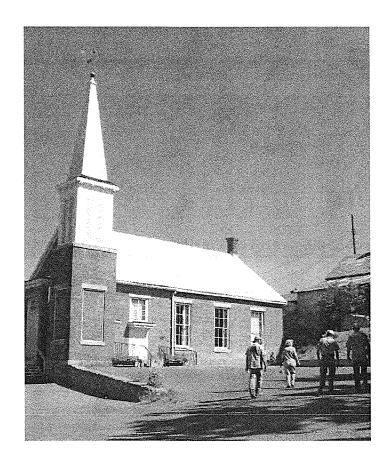
We made a stop in the Lander County Court house. (It was part of the tour.) In the court room Hal made an appearance as 'D' Judge'. The court room has beautiful wood benches and rails, with brass fittings to 'bar' the doors. The sign on the second story balcony advising it unsafe to step outside certainly was another reminder that you don't get out until court is finished! We saw the inside of the old jail cells. (Also part of the tour. They let us out

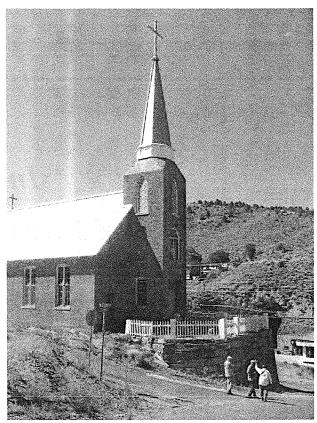
again). On the stairwell wall, hanging proudly, along side official planning maps and historic photos was the 2008 Archaeology and Historic Preservation Month poster. Thanks Austin for the hospitality and support!

Coming soon for select audiences (that means you).

Our next NAA Board meeting will be in Eureka on Saturday October 4th at 2::00 P.M. Wally Cuchine, a long time NAA member and director of the historic Eureka Opera House has arranged for us to meet at the Eureka Senior Citizen Center. That is right across the street from the Eureka Opera house. As always, members are welcome at board meetings. There are wonderful historic buildings and a great walking tour available. On Saturday morning the board will continue our organization assessment so there will not be a formal tour.

We are planning to have the next Annual Meeting in Lovelock in April 2009 to recognize the 75th anniversary of the publication of the Lovelock Cave report. We hope to focus archaeology month material on the cave archaeology of Nevada and the wealth of information it provides for understanding the past.





The NAA board was treated to a tour of the Austin Methodist Church St. Augustine's Catholic Church, both built in 1866 and placed on the National Register in 2003. St. Augustine's Catholic Church is the oldest Catholic Church in Nevada.

NEWS FROM AFFILIATED ORGANIZATIONS

Archaeo-Nevada Society (ANS)

Dr, Kevin Rafferty

The first meeting of the Archaeo-Nevada Society for the 2008-2009 season was September 11, 2008, at 7 P.M. Jeanne Howerton will speak on *Tracks in the Desert: The Great Race Through Nevada.* One hundred years ago, four nations raced their premiere automobiles around the world, from New York to Paris, in one of the most amazing human accomplishments of the 20th Century. The Great Race of 1908 began in Times Square in New York City in the middle of winter and then made a last minute detour through Nevada where the racers met some of the greatest challenges of the trip. The trails they followed are still visible in the Nevada desert and the stories still captivate.

Join us for photos and stories of the 100th Anniversary of the Great Automobile Race. The meeting was held at the West Charleston Campus of the College of Southern Nevada (CSN). We have a new meeting room for this Fall. It's D-213, the second floor in the student services building. This is the four-story building where the testing center and registrar is located. It's the first building south of the 'B' building. It has an elevator in it so our most seasoned members can still access the room easily. All are welcome.

The ANS scholarship fund is building a bit at a time. The endowment part is up to \$2,612.73. When we hit \$10,000 the

scholarship will be self-generating. The scholarship liquid funds right now are at \$700. The entire scholarship program is now available on-line and students can begin applying online. Archaeo-Nevada Society is soliciting donations from local cultural resource management firms, and individuals

interested in local archaeology and historic preservation. Anyone wishing to donate; please contact Rafferty Kevin kevin.rafferty@csn.edu. Donation checks should be made out to the CSN Foundation/Archaeo-Nevada Scholarship Fund.

Lincoln County Chapter Happenings

By Barbara Rohde

This summer, we have been immersed in Paharanagat Man lore. William White came to address our group on his research on Pahranagat Man. Bill had been instrumental in the original formation of the Lincoln County Chapter twenty years ago, when he was working with Dawna Ferris on documenting the Pahranagat rock art sites. Although his main focus of research is historic archeology (he is presently working on Rhyolite documenting the ghost structures), he got hooked on Pahranagat Man petroglyphs, and presented a most interesting talk in June.

Then, in August, we got to hear Anne Carter and Elaine Holmes' talk on "The Dynamic Duo – Pahranagat Man and the Patterned Body Anthropomorphs (PBA's)." Anne and Elaine concurred with Bill, that these petroglyph types are more than 1,000 years old, possible even exceeding 1,500 years old. And these images are unique to the Pahranagat Valley in Lincoln County – a State treasure, if not a "national" treasure!

We have welcomed a couple of new Site Stewards with a class that was taught in May up in Ely, and another class will be taught this fall, hopefully in Caliente. Lone archeologist Lynn

Wulf will be joined by a second archeologist in Caliente, from the Ely District Office. She has been very busy with EA's and other studies, for the land being turned over to private property in the southern part of the county (Coyote Springs, and Toquop). Between her regular duties, she is also finding time to go out to sites with the Site Stewards; we are happy to have her input!

The Lincoln County Rock Art Guide is getting closer to fruition. This project was the result of cooperation between the Greater Lincoln County Chamber of Commerce, the Lincoln County Chapter, and the B.L.M. Cultural Resources program (under the direction of Mark Henderson) in conjunction with tribal representatives - to combine all the various leaflets on "public sites" that the B.L.M. has, into one resource. The initial work of "digitizing" the information was funded by the Nevada Commission on Tourism; it will be uploaded onto the Lincoln County Chamber website www.lincolncountynevada.com ultimately go to print, when the Chamber of Commerce can find funds. This will be a companion piece to the historical "Walking & Driving Tours of Lincoln County," which also was funded by N.C.O.T.

Elko County Chapter, Nevada Archaeological Association

Meetings will be held on the first Friday of the month, at 7:00 p.m. in a variety of locations. Please check each month as times may change. Everyone interested in archaeology is welcome to attend. If you have any questions please call Donna at 738-6269 or email murphys@citlink.net.

Nevada Rock Art Foundation News

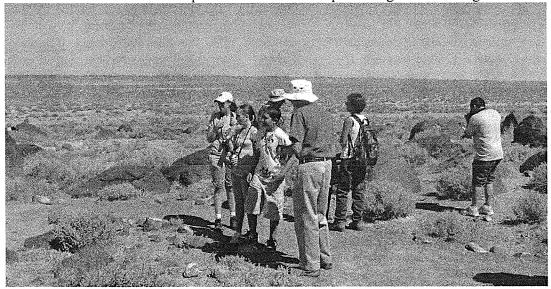
The Nevada Rock Art Foundation hosts a monthly tour in the north and south parts of Nevada.. On October 11, 2008 a free guided tour of several beautiful rock art localities within the spectacular landscapes of the Valley of Fire State Park, east of Las Vegas. Limited to 20. Call (702)804-6723 or email info@nevadarockart.org to reserve a place. On October 18 the foundation offers a guided educational tour of Grimes Point, one of the oldest and most interesting rock art sites in Nevada, east of Carson City and Fallon on Highway 50. Tour is limited to 20 and will begin 10:00 am. Call Kim Hopkinson 775.323.6723 ext.11 or info@nevadarockart.org to reserve a place. In addition to these tours, NRAF

Distinguished Lecture series. On October 16, 20. and 23, Las Vegas, Reno, & Elko - Polly Schaafsma, an authority on Southwest and Great Basin rock art, will make a special presentation on her research exploring southwestern rock art, its relationship to kiva murals and pottery designs in Ancestral Puebloan sites, and the relations of all these art forms to the emergence of the Katcina cult in the 14th and 15th centuries AD. Seating is limited - NRAF members receive a discount on tickets. October 16--Springs Preserve, Las Vegas; October 20--Grand Sierra Resort, Reno; October 23--Great Basin College, Elko. Support for this program is provided by Nevada Humanities, the Springs Preserve, UNR, the Northeastern Nevada Museum, Great Basin College, and NRAF. info@nevadarockart.org

Editors note

Suzan Slaughter

On August 16, 2008 I had the pleasure of attendomg the northern site tour of Grimes Point sponsored by the Nevada Rock Art Foundation. The tour was led by Howard and Pan Lambert, site stewards and NRAF members. It was an enjoyable and educational tour of an outstanding rock art site just east of Fallon. The attendees included seniors and families with children. It was heartening to see the enthusiasm displayed by all the attendees. Thanks to NRAF volunteers, particularly the Lamberts for their contribution to education of the public in the interest of preserving Nevada's fragile cultural resources.



NRAF volunteer, Howard Lambert, explaining the Grimes Point petroglyphs to a rapt young audience

SOLICITATIONS, EVENTS AND ANNOUNCEMENTS

2008 Great Basin Anthropological Conference, Portland, Oregon

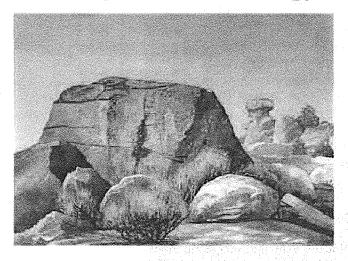
The 31st biennial Great Basin Anthropological Conference will be held **October 8-11, 2008** on the campus of Portland State University at University Place in downtown Portland, Oregon. In keeping with the conference location outside the Great Basin, the theme of this year's gathering is *Beyond the Fringe: Interactions Between Great Basin Peoples and Their Neighbors*. With one symposium dedicated to this concept, a second honoring the contributions of anthropologist Kay Fowler, and several other sessions in the works, the 2008 conference promises to be a fine one.

College of Southern Nevada Scholarship Kevin Rafferty, PhD.

The College of Southern Nevada is proud to announce the availability of the web-based 2008-09 CSN Scholarship Application. As a valued member of the college community, we invite you to log into our website and complete the application today! The College has over 80 different scholarships and expects to award nearly \$250,000 dollars. Student Financial Services will be collecting electronic applications until the end of October and will begin making awards for the 2008-09 academic year beginning in November. Follow this link to the website: http://www.csn.edu/admissions/aid/index.asp, then click on "CSN Scholarship Web Portal" on the right hand side of the page. If you know any archaeology/anthropology students urge them to apply as soon as possible to the Archaeo-Nevada Scholarship.

HARRY REID CENTER FOR ENVIRONMENTAL STUDIES DIVISION OF CULTURAL RESOURCES UNIVERSITY OF NEVADA, LAS VEGAS

Artistry and Archaeology



The Field Journals of David C. Smee

HRC ANTHROPOLOGICAL SERIES SPECIAL PUBLICATION

Harry Reid Center for Environmental Studies Anthropological Series Publication.

HRC is pleased to announce the release of our second "HRC Anthropological Series" publication. A Special Publication entitled "Artistry and Archaeology: The Field Journals of David C. Smee" is now available for purchase. Our first volume, "Firebrand Cave: An Archaic Ceremonial Site in Southern Nevada," is also available for those interested. These publications are available in limited quantities so get yours now!

Ordering is simple. Visit our webpage at http://hrc.nevada.edu/archaeology/ and click on the publications link. Complete the appropriate order form and remit payment as per the instructions.

Please note that we are unable to accept credit cards or cash.

Troop movements

Far Western is pleased to announce that Daron Duke will be returning to their work-force as Director of the Desert Branch office in Las Vegas, at the start of October. Using alphabet-soup jargon, he is officially ABD and PhC at UNR, having completed all program requirements but for finalizing his dissertation. He anticipates that UNR will confer a Ph.D. degree to him Spring Semester 2009.

PROJECTS, ARTICLES, MINI REPORTS

Remapping at Alta Toquima

Submitted by Fred Frampton, Archaeologist, Humboldt-Toiyabe National Forest

In July, Forest Service Archaeologists Fred Frampton, Mark Bodily and Alyce Branigan joined Dave Thomas joined a crew from the American Museum of Natural History in a remapping visit to Alta Toquima on the Toquima Mountain Range on the Humboldt-Toiyabe National Forest. Don Grayson, Dave Rhode, and Maurice Frank-Churchill also participated in the event. Results of this three day field trip included the discovery of some additional residential structures at sites above 11,000 feet, and discovery of a new site consisting of at least 17 residential features at an

elevation of 10,900 feet. This site, named Dakabah (Western Shoshone for snow water), consists of house rings with grinding stones within. Sparse artifacts might place the site in the late Archaic. Of additional interest was finding a 10,000 foot elevation, 1860's lumber mill, residential houses, and logging roads throughout the Pine Creek drainage. This system relates to lumbering for the mining town of Belmont in Nye County. We expect these discoveries will foment a new interest in high altitude sites in the Basin.

Excavations of a historic foundation (26CK7870) in Clark County Wetlands Park

April Sargent-Couch HRA, Inc. Conservation Archaeology

During July and August of this year, HRA, Inc. began excavation of a historic foundation at site 26CK7870 in the Clark County Wetlands Park. The site was originally recorded by HRA in January 2008. HRA's original survey findings indicated that the site was a masonry foundation and scatter of trash that likely dated to the early 1900s when the land was owned by the Bishop brothers around the turn of the century. The sandstone masonry foundation was hidden in a tamarisk thicket on the edge of Las Vegas Wash's steep cutbank. The southern edge of the foundation was less than 3 ft. from the edge of the cutbank. Despite its precarious location, the foundation was in good condition and had a large tamarisk tree growing out of the depression in the center. Leaf litter from the tree had covered most of the foundation's masonry walls with a thick layer of duff.

HRA also found that the foundation was made of locally available sandstone blocks that had been shaped. Although much of the structure was hidden under the duff, the depression in the center and the visible wall fragments indicated that the foundation was square-shaped and measured approximately 12 ft. by 12 ft. A stepped entry into the foundation began along the east

wall and resembled the entry into the Bishop Ranch house that was excavated by UNLV in the 1970s (see Warren and Eskenazi 2007: Figure 4.8). The sandstone blocks forming the foundation walls were large, and fit tightly with no concrete or mortar visible. At least four courses of masonry were visible and the depression in the center of the foundation suggested that the walls were probably 4-5 ft. high.

In addition to the foundation, HRA identified a trash scatter located 20 ft. to the east of the foundation that included several pieces of purple glass (SCA), a clear glass fragment from a lantern chimney, a few pieces of aqua glass, three pieces of white ware pottery, corroded metal fragments, a square nail, a bone fragment that was calcined and several unburned fragments from a large mammal. Two barrel hoops were embedded in the wash cutbank just northwest of the foundation. Other heavily corroded fragments of metal were identified in a shallow drainage north of the foundation.

The foundation appeared to date to the same period as the well, concrete foundation, and irrigation ditch at 26CK6001 and the Bishop Ranch house both located ½ mile to the east. Two Bishop brothers lived at different times in Las Vegas Wash, and this structure closely resembles the Bishops' house foundation excavated by UNLV (Roberts and Ahlstrom 2000; Warren and Eskenazi 2007). This structure is likely related to the Bishops' ranching activities.

In July, HRA began excavation of the structure by digging a trench of five 1 x 1 m units directly through the center. The east end of the trench revealed the presence of seven sandstone slab stairs, with a wooden step just below the lowest sandstone slab. A concrete floor was encountered roughly five feet below the ground surface. The walls of the structure are mostly sandstone slabs, and mortar is present on top of and between many of the stones. The entire structure measures roughly 26 ft (east-west, including the steps) \times 11.5 ft (north-south). A layer of tar paper was encountered during excavation, present just above a layer of sediment that probably was deposited during a flooding episode. The tar paper was likely used as a roof.



Figure 1: At floor, view of steps (looking east)

Artifacts found in the floor fill and on the floor include numerous whole bottles, glass jars and drinking glasses, some of which have makers' marks dating their patents to 1887 and 1908. Other

floor artifacts include a large sack of what may be flour (the label has worn away), part of a metal stove, a yoke, a wooden trivet, a large ceramic plate fragment, and several metal cans. HRA's preliminary interpretation is that these artifacts were abandoned in situ after a flooding event. Units excavated outside of the foundation failed to reveal evidence of a building above the foundation,

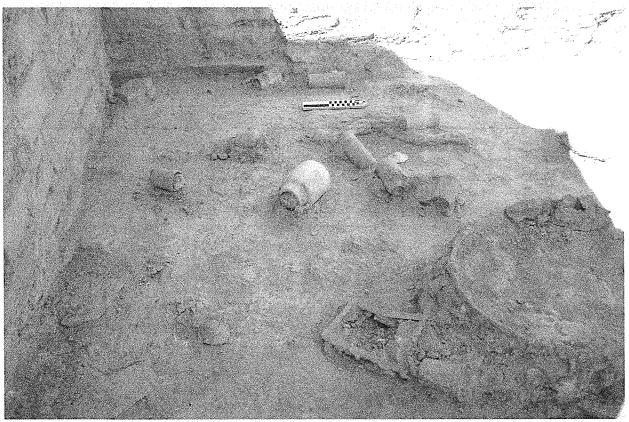


Figure 2. Artifacts on floor (close-up)

However, HRA will further explore the outside of the structure to determine if there is evidence of a superstructure; i.e., a cornerstone farther out which would mark where the portion of the house above ground was present. HRA suspects that this structure was a stand-alone root cellar; however, evidence of a superstructure, if found, will alter this preliminary observation.

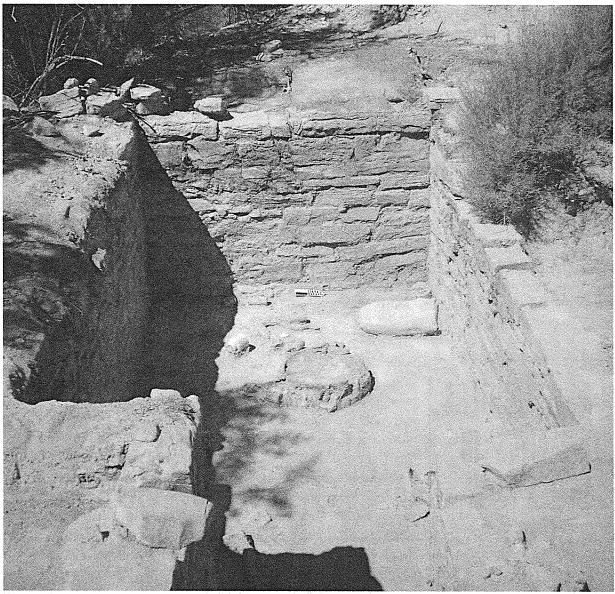


Figure 3. Artifacts, flour sack, barrel hoop (view looking west at artifacts in floor fill and on the floor)

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2000 Fragile Past: Archaeological Investigations in Clark County Wetlands Park, Nevada. HRA Inc. Archaeological Report No. 00-03, HRA Inc., Conservation Archaeology, Las Vegas.

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Research on Stewart Cemetery Reveals Lost Identities

Elizabeth Dickey, Architectural Historian, NDOT



In 1926 Ralph Morse was front page news, but not exactly the kind of news you'd want to read about yourself. Ralph Morse was a section hand for the V & T railroad, married, a father of five and an Indian. On Tuesday, September 28, 1926 a brush and forest fire spread through King's Canyon with the wind pushing the flames towards Carson City . Volunteer fire fighters were rounded up to dig trenches and clear brush. Morse volunteered and was put in a work crew with inmates from the Nevada State Prison.

3 FIRE FIGHTERS LOSE LIVES IN FLAMES NEAR CAPITAL

Early Morning Searchers Find Missing Burned to Crisp on Hill

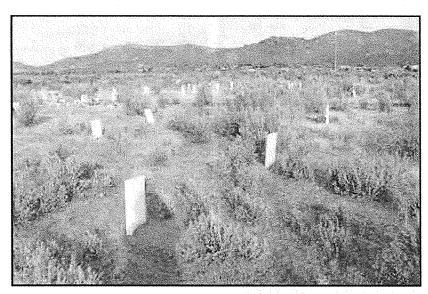
The ever sensitive Reno Evening Gazette reports on bodies "burned to Crisp", No. 230. September 29, 1926, page 1.

Later that day a light snow helped slow the fire but what saved Carson City from burning was a shift in the wind that took the fire up the mountains towards Lake Tahoe. The city was out of danger, but three of the volunteers were unaccounted for. Two were inmates: George Brown who was serving 1 to 5 years for burglary, and J.K. Mitchell, convicted of assault with intent to kill. Both men were up for parole in two months. The third man missing was Ralph Morse. An all night search for the men ended the next day when one of the prison trustees and a Carson City man found the charred bodies about 150 yards from a bend in the King's Canyon Road known as "the barrel." The flames had probably overtaken them when the wind shifted.

Ralph Morse's body was unrecognizable except for scraps of his leather jacket and shoes and a pair of dark glasses. J. K. Mitchell's clothing and body were completely burned up, except, inexplicably, for his shoes and hair. There was nothing recognizable left to George Brown's body and he was presumably identified by process of elimination.

The town overflowed with sympathy and praises for their new fallen heroes. Funds were collected to buy flower arrangements to adorn Mitchell and Brown's caskets. The Reno Evening Gazette declared that during the inmate's joint funeral service, "every business house will close out of respect for their memory," and "prominent citizens of the state capital will be pallbearers" for the burglar and would-be murderer ("Three Fire Fighters Lose Lives in Flames Near Capital",

9/29/1926, pages 1-2). The same article blandly comments on the fate of Morse's body, "The funeral of Morse will be held on Saturday morning at 10 o'clock at the Kitzmeyer, Oliver, Ken ny parlors. Burial will take place in the Stewart Indian cemetery." Business to be carried on as usual, no flowers to be arranged. The Reno Evening Gazette confidently assured readers that Morse's family would be taken care of by the newly enacted Industrial Accident Act.



Simple marble markers at the old Stewart Indian Cemetery.

So Ralph Morse's wife and five children buried him in what is now known as the Old Stewart Indian Cemetery, or the Dat-So-La-Lee Cemetery, after it's most famous internee. If Ralph Morse had a grave marker, it is no longer there. The small burial ground with modest marble tablets and fieldstone markers is located about 400 feet northeast of the Stewart

Indian School . It is a dusty

piece of land, overgrown with sagebrush and bisected by jackrabbit trails. The school was the main contributor of internees during the cemetery's some 60 years of active use between c. 1880 and c. 1940. Though there was a small burial section for Native Americans in the Lone Mountain Cemetery, the Old Stewart Indian School Cemetery was the principle burying ground for Native Americans in the area.

Today, there are about 160 legible grave markers in the Old Stewart Indian cemetery and an estimated 200 people buried inside the cemetery's woven wire fence, though more are probably buried in the surrounding area. The mystery of Ralph Morse's grave site, and the identity of other people lost in the Old Stewart Indian Cemetery are some of the questions that the Nevada Department of Transportation (NDOT) archaeological section, in conjunction with the Washoe Tribe, hopes to answer. As partial mitigation for building the US 395 Carson City Bypass near the cemetery, NDOT's archaeological section is helping to organize a research, documentation, and clean-up project. The first documentation and clean-up will take place on September 27, 2008, on the eve of the eighty-second anniversary of Ralph Morse's immolation.

The goals of the project are to complete survey forms and archival photography for all the remaining stones, map the marked and identifiable unmarked graves using GPS, gently clean stained stones and to repair about 15 broken stones. The most important part of the project is that most of the work will be done by Washoe youth volunteers. The NDOT archaeological section will train the Washoe youth on survey methods and grave marker cleaning techniques. Cal Dillon, stone mason for the Virginia City Historic cemeteries, will be giving hands-on lessons in stone reattachment.

Research for the project will include a trip in November to the National Archives in San Bruno , CA to retrieve scanned copies of all the Stewart Indian School files stored there. The scanned documents will be given to the Nevada Indian Commission to be archived at the future Stewart Cultural Heritage Center . They will be a valuable source of information for those interested in Native American and Stewart School history.

We may never know exactly where Ralph Morse's body rests, but through NDOT funded research we can at least keep his name, and his sacrifice, alive. Research of historic newspapers and mortuary records has already identified three other people in the cemetery with no grave marker: Tiffany Bender (1883-1905) a former student at Stewart and Carlisle Indian School in Pennsylvania; Julia Mitchel (1891-1903) who died of "brain fever" and heart trouble; and Flossie Morris (1900-1909) a daughter of Captain Pete. They may be gone, but it is our responsibility to see that the lives of these people, many of them just children, will not be forgotten.

Do you have information on the Old Stewart Indian Cemetery you would like to add? As part of the project, the public can access and add information on the internees through the website: findagrave.com. Or you can contact Elizabeth Dickey at 775-888-7478 or edickey@dot.state.nv.us.

AGAVE AS A TRADE ITEM

Elaine Holmes

A Bureau of Land Management (BLM) archaeologist, addressing SNRAE (Southern Nevada Rock Art Enthusiasts) September, 1997 mentioned agave as a trade item. Since I have an interest in researching trade routes and wares, my curiosity was piqued, thus I researched and wrote this paper in 1998. Three questions rose immediately to mind: was there documentation of agave use as a trade substance; what was the "shelf life" of the agave product as it traveled the trade routes; and, what was the nutritional value of agave? Trying to track the answers to these three questions led to more than I ever wanted to know about agave.

History and Range

In Nevada, Castetter et al. (1938) say the species extends from the Sheep Range southwards "...and occurs commonly in the general vicinity of Las Vegas at elevations about 4000 feet and upward. Near the summit of Mountain Springs Pass, north of Olcott Peak in the Charleston Mountains, some of the hillsides are almost covered with the species. It is very abundant in the lower portions of the pinon belt of the southern part of the state, particularly in the Virgin and Mormon mountains." Agave quids or chews (sometimes called "yants") were found in sites such as Gypsum Cave, Nevada. Harrington (Castetter et al. 1938) found quids of agave utahensis in the upper layers of Gypsum Cave and reasoned these had been used as food. Although Harrington thought much of Gypsum Cave was of Basketmaker culture, he concluded these quids were of more recent deposit. Harrington also found quids in Paiute Cave near Overton, Nevada.

When Spaniards began colonizing more northern regions of their "Nuevo Espanola" they conscripted local laborers and farmers who took along the maguey to sustain them. Both Spaniards and Portuguese carried agave overseas to the Azores, Canary Islands, Africa and Asia. "Agave hosted man in the New World; man transported and hosted agave in the Old World"

(Gentry 1982). Agave perhaps had as much to do with fostering agriculture as any other plant. It is believed that agave was cultivated from 5000 B.C. onward.

Professor E. O. Callen (Nabhan 1985); investigating coporolites of O'Campo caves of Northeast Mexico, is credited for documenting human consumption of agave leaf tissue for food dating back to 6200 B.C. He believes agave was as major a food item as prickly pear, meat and mesquite. Archaologists Miksicek, Paul and Fish have recently found there was intensive prehistoric reliance on agave in central Arizona (Nabhan 1985). Miksicek and Bohrer sometimes found agave as frequently as corn in plant materials recovered from late Hohokam sites (Nablan 1985). They conclude such extensive use of agave must have come from "long-distance transport" or local cultivation because no agaves now exist where the remains were found. Susan Tweit (1992) notes that even a group of people, southern New Mexico's Mescalero Apache, were named for their diet and trade in mescal. She also states that agave roasting pits are common Southwestern archaeological sites, dating back at least 8000 years.

Were agave products used as trade items?

Documentation for this question was exceedingly hard to find but once located the answer was a resounding "yes." In addition to Miksicek, Bohrer and Tweit previously cited, Castetter (1935) says, "an extensive commerce in this product was formerly carried on, chiefly between the Apache and outlying tribes such as the Hopi and Pueblo Indians of the Rio Grande Valley."

Castetter et al. (1938) have been the major source of information such as:

- -- the Hualapai Indians gave Father Garces, traveling in 1776, mescal for food.
- -- in 1876 Palmer "observed Hualapai pressed the roasted crowns and leaves...into large, thin cakes which they traded to the Hopi for maize."
- -- Northeastern Yavapai visited Navajo country with mescal and other articles for trade.
- -- Western Yavapai traded mescal with the Navajo and also to the Yuma, Mohave and Papago.
- -- the Mohave did not grow it themselves but secured it by barter with the Western Yavapai and the Chemehuevi.
- -- the Papago pit roasted but obtained agave by trade.
- -- the Yuma did not particularly like mescal but during times of food shortage traded with the Western Yavapai for it.
- -- the Kamia (Imperial Valley) traded it.
- -- the Dieguenos traded it to the Kamia in the form of dried fibrous cakes.
- -- agave was rarely indigenous to the territory of the Pueblo and thus seldom utilized. Of these people, however, the Zuni made greatest use of it, mostly obtained by trade with the Western Apache, Havasupai and Walapai (Hualapai).
- -- mescal played an important part for the nomadic and semi-nomadic tribes (except Navajo).
- -- the only peoples who did not use mescal rather extensively for food were the Pueblos, Navajos, Pima, Papago, Mohave, Yuma, Maricopa and some of the Cocope.

What was the "shelf life" of agave?

Since agave would have to withstand the rigors of the trade route for perhaps extended periods of time, the tools, preparation and ceremonies involved in treatment should be considered. Agave was the first important crop to ripen in the spring. Most sources say March, April, May or June were the gathering times, when the reddish flower stalks began to appear (Castetter et al. 1938). The heads (or "cabezas") of the mescal were dug, chiefly by men and boys, with chiselshaped, fire hardened sticks. Other tribes utilized stone mescal hatchets and broad flint blades. Whichever implement was used, the plants were dug out of their habitat and transported, either by pack or by stringing them on a pole, back to camp.

Agave is basically a starch and merely supplying heat converts starches to sugars (Gentry 1982). Communal roasting pits seemed to be the preferred method of cooking.

A large pit was dug and a fire built in it. After the fire died down, rocks were added to the pit and each family placed its agaves in a section of the pit. More rocks were added and a fire built on top. The pit was left unopened for 24 hours, during which time singing and dancing took place. Prohibitions were also in effect to insure good baking. After the pit was opened, the sweet, dark mass was removed by each family and cooled, pounded, and formed into large, flat cakes for drying and storage (Fowler, C. 1986:67).

Regional variations included extended roasting time; spreading the top of the pit with dirt and inserting thorny branches to deter dogs and wild animals; families marking their own mescals; or, roasting in cobble-lined hornos. Nobel (1994) states roasted agaves are eaten like artichokes—leaves scraped against the teeth to pull off edible parts and the cabezas can be eaten entirely, like artichoke hearts. Castetter (1935) says they have a sweet taste, "like beets or molasses." And Castetter et al. (1935) say agave has a sweet, smoky taste, somewhat like molasses, with a mild laxative effect. The author was fortunate to be able to attend an agave roasting session in Arizona and thinks it tastes much like a sweet smoked salmon. Since agaves are quite fibrous the indigestible parts were spit out, thus quids.

Agave thus roasted, pounded and dried could be stored "indefinitely" (Gentry 1982). The Southeastern Yavapai, who subsisted wholly on wild products with mescal being their outstanding food, stored it for years (Castetter et al. 1938). To the Western Apache mescal was a favorite food and with the advent of the horse, they carried packs of it wrapped around their bodies or on their saddles while at war or on hunting parties. Thus, they could easily and quickly break off a chunk without dismounting. The preferred method of ingestion of the cakes however, seemed to be as a gruel or paste made with water.

In conclusion, it is my opinion the simple agave does not get enough credit for being the important, versatile plant it is. Such a diverse resource aiding ancient survival should receive glowing accolades. It cannot be said better than by Gentry (1982), "As civilization and religion increased, the nurturing agave became a symbol, until with its stimulating juice man made it into a god."

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